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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,609	04/09/2004	Siddharth Shastri	JARR-190.1	1553
<div>7590 01/31/2007 McCarter &amp; English LLP CityPlace I 185 Asylum Street Hartford, CT 06103-3495</div>			<div>EXAMINER WINSTON, RANDALL O</div>	
			ART UNIT	PAPER NUMBER
			1655	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/821,609

Applicant(s)

SHASTRI ET AL.

Examiner

Randall Winston

Art Unit

1655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 10-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Group I, claims 1-9, in the reply filed on 11/03/2006 is acknowledged.

### ***Claim Objections***

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the term "spawn" and the phrase "combining a spawn of at least one edible mushroom-producing fungi with the substrate". No objective criterion is provided in the specification or claim to apprise one of skill in the art of the meaning "spawn" and "combining a spawn of at least one edible mushroom-producing fungi with the substrate" There is no definition of "spawn" nor "combining a spawn of at least one edible mushroom-producing fungi with the substrate" in the claims or specification to

Art Unit: 1655

apprise one of skill in the art with unambiguous meaning of the claimed invention.

Therefore, applicant may overcome this rejection by clearly delineating the metes and bonds of what is "spawn" and what is "combining a spawn of at least one edible mushroom-producing fungi with the substrate"? (How is Applicant combining a spawn of at least one edible mushroom-producing fungi with the substrate?)

Claim 3 is rendered vague and indefinite by the terms "shitake" and "reishi" and "maitake". Applicant has to replace the above terms and provide to Examiner the Botanical Names of the above terms within their claims. Appropriate corrections are required.

All other claims depend directly or indirectly from rejected claims and are, therefore, also rejected under 35 U.S.C. 112, second paragraph for the reasons set forth above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 6,803,226) in view of Inoue (Derwent-Acc-No 2000-596789) and Murao (JP 60149379A).

Although very unclear as drafted, Applicant claims a method of producing an edible mushroom-producing fungi containing biologically active forms of folic acid comprising the steps of supplying a growth environment for cultivation of edible mushroom-producing fungi wherein the growth environment comprises a substrate and water and further comprises a para-aminobenzoic acid, then adding a synthetic folate to the growth medium, then cultivating the edible mushroom-producing fungi in the growth environment for a sufficient time to permit the mushroom-producing fungi to accumulate a nutritionally significant amount of methylated folate is apparently claimed.

Suzuki teaches (see, e.g. abstract, column 5 lines 36-50, table 1, column 9 lines 28-30) cultivating an edible mushroom-producing fungi (i.e. Matsutake) within a growth medium comprising a substrate, folic acid (folic acid is the synthetic folate) and water. Suzuki, however, does not teach that Suzuki's growth medium contains the claimed substrate of brown rice within it nor its growth medium contains a para-aminobenzoic acid within it.

Inoue beneficially teaches (see, e.g. abstract) that brown rice is beneficial within a growth medium that contains mushrooms.

Murao beneficially teaches (see, e.g. abstract) that p-aminobenzoic acid is beneficial within a growth medium that contains mushrooms.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Suzuki's growth medium to include the active ingredients of brown rice and p-aminobenzoic acid as taught by Inoue and Murao within Suzuki's growth medium because the combined reference teachings would create an improved

Art Unit: 1655

claimed method of supplying a growth environment for cultivation of edible mushroom-producing fungi within an improved growth environment that comprises a substrate (i.e. brown rice), folic acid, water, a para-aminobenzoic acid. Therefore, when cultivating the edible mushroom-producing fungi within the improved claimed growth environment for a sufficient time, the improved claimed growth medium would intrinsically permit the mushroom-producing fungi to accumulate a nutritionally significant amount of methylated folate. Furthermore, the adjustment of other conventional working conditions (e. drying, harvesting and milling the fungi and cultivating the edible mushroom for a sufficient time to produce the claimed intrinsic effects) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan.

Accordingly, the claimed invention was prima facie obvious to one of ordinary skill in the art at the time the invention was made, especially in the absence of evidence to the contrary.

Applicant is advised that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

Art Unit: 1655

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Winston whose telephone number is 571-272-0972. The examiner can normally be reached on 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
MICHELE FLOOD  
PRIMARY EXAMINER